

What is claimed is:

1. A vending machine for vending products including the vending machine comprising:  
a cabinet and a door defining an inner cavity for holding products for vending;  
a vending machine controller ("VMC") for controlling the operation of the vending machine based on a standardized vending machine protocol program;  
a money handling system including a coin acceptor/changer and a bill acceptor-dispenser for receiving and dispensing money;  
said bill acceptor-dispenser including:
  - a validator for determining the authenticity and denomination, of notes inserted into said bill acceptor-dispenser and for generating signals for each received note;
  - a processor for receiving the validator signals and communicating with to said VMC;
  - a note box configured to receive and hold notes received by said bill acceptor-dispenser;
  - a note hopper for escrowing notes received by said bill acceptor-dispenser;
  - and
  - a transportation unit for directing notes determined to be authentic to one of said note box and said note hopper and for dispensing notes from said note hopper;
  - said coin acceptor/changer receiving and validating coins and generating a signal signifying receipt and value of received coins to said VMC; and
  - a program to calculate change to be dispensed by the vending machine and outputting signals indicative of the change to be dispensed to said bill acceptor-dispenser which controls the disbursement of currency and coins by said vending machine.
2. The vending machine of claim 1 wherein said bill acceptor-dispenser further comprises:  
a memory for maintaining a running accounting of the number and denominations of the notes contained in said note hopper.
3. The vending machine of claim 1 wherein said bill acceptor-dispenser further comprises:  
a unit controller for controlling the operation of the bill acceptor-dispenser, said unit controller being capable of changing the characteristic used for directing notes to said note hopper.
4. The vending machine of claim 1, further comprising:  
a processor for calculating the number of notes to be dispensed from said note hopper and the number of coins to be dispensed from said coin hopper to provide a combination of notes and coins

to total an amount to be dispensed following the vending of an item.

5. The vending machine of claim 4 wherein said processor runs a Control Program, said Control Program being capable of communicating with the VMC and controlling the display of information to a user.

6. The note acceptor-dispenser of Claim 5 further comprising a controller for controlling the disbursement of currency and coins from said vending machine.

7. A bill acceptor-dispenser for receiving and dispensing money in a vending machine having a vending machine controller ("VMC") for controlling the operation of the vending machine based on a standardized vending machine protocol program and a coin acceptor/changer for receiving and validating coins and generating a signal signifying receipt and value of received coins to the VMC; the bill acceptor-dispenser comprising:

a validator for sensing data relating to the authenticity, denomination, and type of note inserted into said validator and for generating signals corresponding to the sensed data for each received note;

a processor for receiving and comparing said sensed data signals with stored data to validate the authenticity of said notes and for generating a signal signifying receipt and a designated value of said note within the limitations of the standardized protocol to said VMC;

a note box configured to receive and hold notes received by said bill acceptor-dispenser;

a note hopper for escrowing notes received by said bill acceptor-dispenser; and

a transportation unit for directing said notes determined to be authentic to one of said note box and said note hopper and for dispensing notes from said note hopper in response to a signal from said processor.

8. A vending machine comprising:

a cabinet for storing items to be vended;

a coin acceptor/changer for accepting and validating coins and dispensing coins as change upon command;

a bill acceptor-dispenser for accepting and validating notes, storing selected notes in a dispensable fashion and storing all other received notes in a non-dispensable fashion, said bill acceptor-dispenser controlling the dispensing of coins and notes as change provided by said vending machine; and

a Control Program for controlling the denominations of notes to be accepted by said bill acceptor-dispenser based upon the availability of notes held in a dispensable fashion.

9. The vending machine of claim 8 wherein said bill acceptor-dispenser further comprises:

a bezel assembly having an opening for allowing the insertion of notes into said bill acceptor-dispenser, said bezel assembly also having a display to provide a visual indication of the denominations of notes that said Control Program will allow to be accepted.